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Soil and Water Conservation News

United States Department of Agriculture
Soil Conservation Service

Swampbuster—Protecting Wetlands



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Comments: From the SCS Chief

A New Way to Protect Wetlands: Swampbuster

One provision of the Food Security Act of 1985 brings some much needed consistency to USDA programs. The section, titled wetland conservation in the Act, is often referred to as "swampbuster."

In essence, it means that any farmer who converts wetland after December 23, 1985, and produces an agricultural commodity on it will no longer be eligible for many U.S. Department of Agriculture farm programs.

Before swampbuster, farmers could include converted wetlands as part of their base acreage for USDA price support programs. For years, this amounted to a subsidy for the conversion of wetlands to cropland.

We in USDA have worked long and hard with leaders of agricultural, environmental, and conservation groups to develop a definition of wetlands that most people could accept. At the same time, we've built in exemptions that keep the law from creating an undue hardship on farmers.

We now have agreement that wetlands are areas of soils that under natural conditions are saturated or covered with standing water most of the year (we call these hydric soils) and that support mostly water-loving (hydrophytic) plants. This definition is the key to the swampbuster provision. Broad acceptance of it will mean broad support for wetland conservation. It also will mean more people will understand that not every wet field is a true wetland.

Swampbuster encourages farmers to think twice about converting wetlands. In this time of large surpluses and low prices, there is little reason to bring wetlands into production.

And there are many reasons to preserve them: Wetlands provide some of the best habitat for fish and wildlife; control flooding by storing stormwater; trap pollutants; help recharge aquifers; and, last but not least, provide popular recreation areas.



Cover: Willets, common shore birds in marshes and other wetland areas.

Richard E. Lyng
Secretary of Agriculture

Wilson Scaling, Chief
Soil Conservation Service

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Swampbuster— How It Affects Producers

If you asked a dozen people what wetlands are, you'd probably get a dozen answers.

But under the Food Security Act of 1985 there is only one right answer. That answer is the definition contained in the wetland conservation provision.

The definition says that wetlands consist of soils that are usually saturated or ponded—hydric soils—and that support mostly water-loving plants—hydrophytic plants. It was developed by, and is acceptable to, most agricultural, commodity, conservation, and environmental groups.

The wetland conservation provision is better known by another name—swampbuster. It applies to anyone who converts wetlands after December 23, 1985 (the date President Reagan signed the Food Security Act), and produces agricultural commodities on that land. Producers who do this become ineligible for the benefits of many U.S. Department of Agriculture programs, including commodity price supports, loans, crop insurance, disaster payments, and storage payments. Loss of eligibility applies to all commodities produced by the producer. Producers can regain eligibility by stopping production on the converted wetland area.

The wetland conservation provisions contain some important exemptions. Exempt is agricultural production on:

- Wetlands converted before December 23, 1985.
- Artificially created wetlands, including those created by irrigation return flows.
- Wetlands that became dry through natural conditions such as drought.
- Wetlands where the Soil Conservation Service determines that the conversion will have minimal effect on wetland values.



The swampbuster provision of the Food Security Act of 1985 discourages farmers from converting wetland areas like this freshwater marsh to cropland.

Photo by Katherine C. Gugulis, former public affairs specialist, SCS, College Park, Md., now head, Media Services, SCS, Washington, DC.

Unlike other conservation provisions of the Act, having—or not having—a conservation plan in no way affects eligibility for farm programs under swampbuster. It is the conversion and subsequent production of an agricultural commodity on certain converted wetlands that make a producer ineligible for USDA farm program benefits.

To understand swampbuster, you need to understand these definitions:

- Wetland conversion means draining, leveling, filling, or otherwise altering wetlands to produce agricultural commodities.
- Agricultural commodities are crops that are planted and produced by annual tilling of the soil.
- Producers are persons who share in commodities available for sale.

There are more than 75 million acres of wetlands in the contiguous United States—less than half the original total. About 5 million acres have high or medium potential for conversion to cropland, according to the SCS 1982 National Resources Inventory. About half of this acreage is in eight states: Florida, Alabama, Minnesota, North Dakota, Mississippi, North Carolina, Michigan, and South Carolina.

Under the law, SCS determines if an area is an existing wetland or a wetland that was converted to cropland after December 23, 1985. These determinations are made for producers who have applied for the benefits of Agricultural Stabilization and Conservation Service (ASCS), Farmers Home Administration, or Federal Crop Insurance Corporation programs.

Often, SCS conservationists will be able to tell in the office whether an area is classified as a wetland. They'll use lists of hydric soils, soil surveys, Fish and Wildlife Service wetland inventory maps, ASCS aerial photographs, and other resource data.

If they can't make an office determination, they'll go to the field. There, they'll decide if the area meets the criteria for hydric soils and hydrophytic vegetation.

Diana Morse,
public affairs specialist, Public Information Staff, SCS, Washington, DC

A Hard Look at Software



Welcome Aboard, FOCAS

WANTED: *Office assistant. Must be able to handle multiple word-processing assignments simultaneously, draw graphs, calculate engineering equations, and file and retrieve information with better than 99 percent accuracy. Frequent overtime. Must be friendly.*

This help-wanted ad has been answered, and the capable, friendly assistant is coming to work in offices of the Soil Conservation Service. The new worker is a system of small computers and workstations named FOCAS (Field Office Communication and Automation System).

The SCS North Carolina State office has received two FOCAS systems. One computer was put to work as a data base system to handle the bulk of State office operations; it has two workstations. The other computer, with five workstations, is mainly used for training field office personnel but will also be used for assisting the primary system.

Only 40 years ago, the first large-scale electronic digital computer was unveiled. This 30-ton marvel, ENIAC (Electronic Numerical Integrator and Computer), was home to more than 17,000 vacuum tubes, 70,000 resistors, 10,000 capacitors, 6,000 switches, and 500,000 soldered joints. It was 100 feet long, 10 feet high, and 3 feet deep and required 140 kilowatts of power. Reprogramming involved unplugging and replugging hundreds of wires, much like a telephone switchboard.

One of the new FOCAS computers, on the other hand, can store 1,000 times more data internally and almost 150,000 times more when the hard disks are

included. In fact, each workstation is capable of acting as a stand-alone computer with a memory several hundred times greater than ENIAC.

The two FOCAS computers and seven workstations in North Carolina are capable of storing more than 400 million letters and numbers. That's equivalent to 100,000 typewritten pages—a very large book by anyone's standard. The power requirement for all of this is less than 2 kilowatts.

FOCAS cannot do everything. But what it does, it does exceedingly well. That leaves SCS employees free to do the things that they do exceedingly well, such as exercising judgment.

In North Carolina, SCS is beginning to use FOCAS on high workload applications such as word processing, using electronic printers as typewriters. Other uses include property inventory and engineering applications. As FOCAS-specific software arrives, SCS will be able to include cooperator files.

FOCAS should help SCS to better advise landowners and land users throughout the country on the wise management of our precious soil and water resources.

Archibald P. Hudgins,
coordinator, Information Resources Management, SCS,
Raleigh, N.C.

SCS Goes to CAMPS

This fall, Soil Conservation Service employees from field offices, State offices, national technical centers (NTC's), and national headquarters in Washington, DC, met in Rockville, Md., to discuss their summer with CAMPS. They didn't trade camping stories, but shared their experiences from a summer test of the agency's Computer Assisted Management and Planning System (CAMPS).

CAMPS is the computer software developed by the SCS field office support staff for use with the microcomputers to eventually be installed in all SCS field offices as part of the Field Office Communication and Automation System (FOCAS).

Testing of the software this summer in 19 States, four NTC's, and national headquarters was to see how well the software meets the needs of a typical SCS field office staff and how easily users can learn to operate it. The purpose of the meeting this October was to discuss what field staffs liked and didn't like about CAMPS and develop solutions to any problems they may have had with entering or using data, setting up client files, or other tasks.

The SCS district conservationists (DC's) who participated in the summer test said that overall their staffs liked using CAMPS. The DC's said that some users had difficulty at first operating the microcomputer, but once they became comfortable with the machine they had no major problems using the CAMPS software.

The CAMPS menu, or list of actions from which the user can choose, covers client services as well as program and administrative activities. The main goal of the automation effort in SCS is to enable field staffs to run resource inventory data for a field or farm through an evaluation scheme and come up with several alternative treatments and their costs to present to landowners.



CAMPS currently includes routines for maintaining client records, inventorying resources, planning conservation systems, writing long-term contracts, using the universal soil loss equation, and reporting progress. Plans are to include at least 13 other functions that will help field staffs determine the economic benefits of conservation practices and systems, design agricultural waste management systems, evaluate and design irrigation systems, evaluate range improvement methods, consider hydrologic and hydraulic data in their planning and design work, use the wind erosion equation, and do their workload analyses, plans of operation, and scheduling.

One thing DC's stressed was that the software must be flexible enough for them to adapt CAMPS applications to cover resource conditions that are characteristic of their county. The leader of the team that developed the software, Owen Unangst, an SCS supervisory soil conservationist in Fort Collins, Colo., assured them that the software was designed to enable States to include applications unique to their needs.

A revised version of CAMPS is planned to go to 300 SCS field offices by the spring of 1987.

In the past, SCS conservationists have had to plan conservation systems and weigh alternatives using pen and paper. Soon, they will be using microcomputers and specially designed software.

Improved conservation planning is the first result expected from the new software. This is because of the vastly improved data storage, data use, and documentation that CAMPS provides. DC's and others from State and NTC offices see it taking a little longer to see substantial time savings across the board because of the time it will take field staffs to get equipment installed, enter data into the system, and become expert users.

Under the conservation provisions of the Food Security Act of 1985, more and more farmers and ranchers, to retain their eligibility for certain U.S. Department of Agriculture farm programs, will be going to SCS field offices for conservation planning assistance. Having CAMPS in working order will help field staffs manage the workload.

Nancy M. Garlitz,
editor, *Soil and Water Conservation News*, SCS,
Washington, DC

CRP—Good News for Minnesota Farmers

Like this sloping field planted to winter wheat, nearly a quarter of the cropland in Le Sueur County, Minn., is highly erodible and eligible for the Conservation Reserve Program. The erosion rate on this field is more than 20 tons per acre per year.



If they put Dale Traxler on the evening news, it would go something like this: Here is another farmer hounded by debts, whipped by the weather, and held hostage to international grain markets. After 17 years of farming, he's throwing in the towel.

Yet Traxler looks and talks more like a man with a dream, than one who has given up. To be sure, farming his hilly south-central Minnesota land was never easy. He's had to change courses a couple of times, and, at 49, he does have a few gray hairs. But he still has his house and land, is busier than ever, and is enjoying life.

Traxler has simply found a better use for his farm than farming. He is turning the bulk of it into a private game preserve. Under the new Conservation Reserve Program (CRP) of the U.S. Department of Agriculture, he will receive annual payments of about \$80 per acre for converting 167 acres of his hilliest cropland to wildlife habitat.

"It's the only way I can hang on to this place," he said. "One time I owned it free and clear. Now I owe a \$300,000 mortgage. With CRP payments I should be able to keep it."

In all, Traxler has 240 acres. He raised beef cattle until a few years ago when he and nearly all the other farmers in Le Sueur County switched to corn, soybeans, and wheat. Then grain prices fell to the point that Traxler could no longer make a living farming. He went into the drainage business with his son.

"This land should never have been broken out in the first place," Traxler said. "Not counting my labor and the cost of the land, I would put \$120 an acre into farming it and get \$190 back. My neighbors would do the same thing on their flat land and get \$220 or \$230 back. Over the years, that adds up. And it's all because of the hilliness of the land."

The 167 acres he placed in the CRP consists of clay loam soils with slopes of 9 to 18 percent. To provide a good mix for wildlife, Traxler is planting 39 acres to switchgrass; 12 acres to pine, cedar, ash, and maple trees; 2 acres to indiangrass and bluestem; and the rest to an alfalfa-brome mixture.

When this land was cropped, tons of sediment flowed into a 60-acre slough managed for wildlife by the Minnesota Department of Natural Resources (DNR). The permanent wildlife plantings will reduce the amount of sediment entering the



Under the Conservation Reserve Program, this field of highly erodible cropland will be planted to alfalfa brome unless it is determined that the established cover is already effectively controlling erosion. Evaluating the cover with the landowner, George Weaver, center, are Floyd Mueller, left, Le Sueur County executive director of the Agricultural Stabilization and Conservation Service, and Mike Taylor, SCS district conservationist.

slough. Traxler also hopes the combination of his wildlife plantings and the water in the slough will provide habitat for ducks and other waterfowl that travel the Mississippi Flyway as well as upland game birds such as pheasant.

"I've always wanted to do something for wildlife," Traxler said. "Over the years I've planted a few rows of wildlife food crops, but nothing on this scale before."

The CRP is designed to reduce soil erosion and crop surpluses by taking highly erodible land out of production and keeping it in grass and trees for a minimum of 10 years. Participating farmers receive payments equal to about half the cost of establishing the new plant cover, plus annual rental payments for 10 years. The land cannot be cropped or grazed, but can be developed for wildlife.

The CRP is administered by USDA's Agricultural Stabilization and Conservation Service (ASCS). The Soil Conservation Service determines whether land is highly erodible and thus eligible for the program. SCS also provides conservation planning and technical assistance for establishing the permanent cover. In promoting the

CRP in Minnesota, ASCS and SCS have been joined by USDA's Extension Service, the University of Minnesota, local conservation districts, the State DNR, and many private wildlife and conservation groups.

During 1986, the first year of the program, more farmers signed up for the CRP in Minnesota than in any other State. Of the State's 100,000 farmers, more than 7,000 entered the CRP. Many, like Traxler, are developing wildlife habitat.

Minnesotans are a resource-oriented, outdoorsy type of people. The State has made a legend of its sky blue water and 10,000 lakes. DNR estimates that every other man, woman, and child in Minnesota owns a fishing rod. In winter, many will chop through 2 or 3 feet of ice to use them.

About half of the State's 4 million people live in the cosmopolitan Minneapolis-St. Paul area, but most have rural roots. These cities support large chapters of such wildlife groups as Ducks Unlimited, Pheasants Forever, and the Minnesota Waterfowl Association, three private groups that are helping to promote the CRP.

Although Minnesota is a major agricultural State, farming in this wet, northern

climate can be an expensive, risky business. The soils are generally fertile, but even those on the flatlands commonly need to be drained and protected by windbreaks. Most common crops can be grown, but if a crop is drowned early in summer the short growing season allows little time to prepare a new seedbed and start over. It's not uncommon to see corn standing in a snow-covered field over winter because it was too muddy in the fall to harvest. Farming the sloping land only increases the wear and tear on equipment, the consumption of fuel, the cost of trying to replace the nutrients lost to water erosion, and the risks of crop failure. Thus, many farmers welcome a guaranteed return on their more marginal cropland.

Retirement is also frequently given as a reason for placing cropland in the CRP. About 34 percent of the farmers in Minnesota are 55 or older.

A few miles from Traxler's place, George Weaver owns 2,000 acres of hilly farmland near Horseshoe Lake. Weaver is 65. He and his wife, who have no children, would like to retire and obtain a reliable income by renting out their farm—or parts of it. Land values have dropped too much to sell.

Weaver has been farming since he was a teenager. Having bought three expensive self-leveling combines, he knows firsthand the cost of farming sloping land. By adjusting for the slope, the combines keep the sieve level to sift the grain from the chaff. Although they can adjust for slopes up to 18 percent, they still cannot compensate for the slope on all of Weaver's land. Last year one of his neighbors luckily escaped injury when a combine turned over on some hilly cropland.

Farming hilly land is no easier for tenants. "If they're just starting out in farming," Weaver said, "the machinery is usually too complicated for them. I've had four tenants so far, and three of them have gone under."

Weaver's farm is not all in one tract. Some fields are more hilly than others, and

some fields are more accessible than others. This year he placed 450 acres of his most rolling, inaccessible cropland in the CRP.

"The thing I like about CRP is that it put me in control again. Now I know what I can count on from this land and not worry about it," he said. "Then I can rent the rest of my farm, which is the best land, and get out of farming if I want to."

One of the crop fields he put in the CRP borders Horseshoe Lake. "Something also had to be done about the runoff," he said. "Sometimes there was foam in the lake 16 inches thick from all of the chemicals on that field. This should help clean it up."

If they could afford it, many farmers would terrace their hilly cropland. But many can't afford terraces. For them, the CRP offers an affordable way of being responsible stewards of the land.

LeRoy Olsen, 34, was raised on a dairy farm in Lyon County. He left home after high school, spent a couple of years in the military service, then worked for a local construction company installing terraces for 8 years. When his father, who is 69, retired recently, Olsen returned with his wife and two small children to run the family farm.

A disagreement soon arose about what to do with 16 acres of steep cropland that runs for about a half mile along East Twin Lake. When the younger Olsen plowed this land, the steep grade would make his tractor "snort" and he could see where streams of sediment were flowing down into the lake, a descent of more than 100 feet.

"When I first moved back to the farm," Olsen said, "I wanted this area terraced. But Dad said no because terraces cost a lot and they are hard to farm. He suggested that we put it into alfalfa for hay, but my concern was that I would have to stand on the side of that hill and bale it."

The two continued to disagree until the spring of 1986 when the son read about the CRP. "I knew it was a program for us, but I had to talk Dad into it. At first he wasn't interested, but then he saw that we

could get a little money from it and agreed."

Olsen, who rents the farm from his father, then offered to place the land in the CRP for \$65 an acre, with each of them getting half. After an onsite inspection by the local SCS staff to certify the land's eligibility, the bid was accepted. The land, some of which was eroding at a rate of 45 tons of soil per acre per year, is now being seeded to oats, alfalfa, brome, orchardgrass, and intermediate wheatgrass.

Now that he has the land in the CRP, Olsen is no longer trying to talk his father into terraces. "Terraces are fine," he said, "but if I never see this land come back into production, that's okay with me. These 16 acres should never have been brought into production in the first place."

Another Lyon County farmer who is concerned about soil conservation is Gene Heinis. Heinis owns 440 acres north of Russell and has placed 233 acres of his hilliest cropland in the CRP.

Heinis would have liked terraces, but always knew they were impractical for his farm. Terraces are most suitable to long, gentle slopes. The hillsides on Heinis' farm are short and tend to meet from all directions. Terraces would have been difficult to lay out on this land and difficult to farm once they were in place.

Still, Heinis is concerned about erosion and what it is doing to his farm. "I felt I had erosion under control when most of my farm was in pasture," he said. Then a few years ago he switched to row crops, and the erosion rate on parts of his farm shot up to 20 tons of soil per acre per year.

"I followed the farm bill legislation from the beginning. I talked to my congressman about it, read the newspapers, and then talked to the local SCS and ASCS people," he said. "When it became law, I was ready."

Heinis signed up land in each of the first three signups, each time getting \$70 per acre, the maximum for the bid pool in his area. He is planting the land to alfalfa, brome, orchardgrass, and wheatgrass and hopes to see more wildlife in the area within a couple of years.

"Conservation is the main reason I'm participating in the CRP. I also felt the rent was fair," he said. "Besides, I'm getting older and my equipment is too. We need to slow down. And I'm tired of worrying so much about the weather."

Heinis is in his mid-fifties and plans to continue farming. He has seven children—the youngest is 15—and predicts that one of them will one day want to run the farm.

"I'm urging all of my kids to go to college first," he said. "Then if they want to come back to farming, that's their business. Maybe farming will be better then. Maybe the CRP will help. I have to be an optimist. As a farmer, I don't have any choice."



Heavy workloads created by record CRP signups in some parts of Minnesota have required temporary reassessments among SCS field staffs. Jim Williams, right, SCS district conservationist in Murray County, checks with Larry Schmidt, SCS district conservationist in Lyon County, before making an onsite validation of one of the more than 150 land parcels submitted for the CRP in Lyon County, which has about three times as many CRP participants as Murray County.

Photo by Michael Price, public affairs specialist, SCS, St. Paul, Minn.

Government officials are also optimistic. Field office staffs of ASCS and SCS point with pride to the sloping fields they have helped bring into the CRP. And they speak knowingly of other fields that should be brought into the program and will be as soon as the farmer decides—for one reason or another—that enough is enough.

"If we get enough of this marginal land out of production," said Floyd Mueller, Le Sueur County director for ASCS, "the price of corn will go up again and farming will be a good thing again. This is one of the best programs to ever come out of Washington, DC."

In the State capital of St. Paul, State and Federal managers chart statistics that show that Minnesota farmers have now placed more than 661,000 acres in the CRP program out of a total of 1.9 million acres in the State that are eligible. The program, they say, is not only well on its way to meeting USDA goals but is also making a lot of other people happy in the process.

"This program has everything," said Tim Bremicker, of the Wildlife Division of DNR. "Not only are we doing something for the farmers, but we're doing something for Minnesota—for the lakes and the wildlife that the people of this State care so much about. It's the right program, at the right time."

Paul D. Barker,
associate editor, *Soil and Water Conservation News*,
Washington, DC

Reinvest in Minnesota



The Minnesota State Legislature this year allocated \$9.4 million to purchase conservation easements as part of a new program to protect natural resources and enhance farm, forest, and tourism economies.

The new program, Reinvest In Minnesota (RIM), creates a land set-aside program to convert marginal and highly erodible cropland to wildlife habitat. It also creates a long-range management program for fish and wildlife and a private/public matching fund to acquire and improve critical fish and wildlife habitat areas.

The land set-aside part of the program is administered through the State's soil and water conservation districts through the Minnesota Soil and Water Conservation Board in the Minnesota Department of Agriculture and is similar to the Conservation Reserve Program (CRP) of the Food Security Act of 1985. As under the CRP, landowners are paid for retiring marginal cropland for a minimum of 10 years. The two programs differ, however, in the method of payment, nature of the agreement, and eligibility requirements.

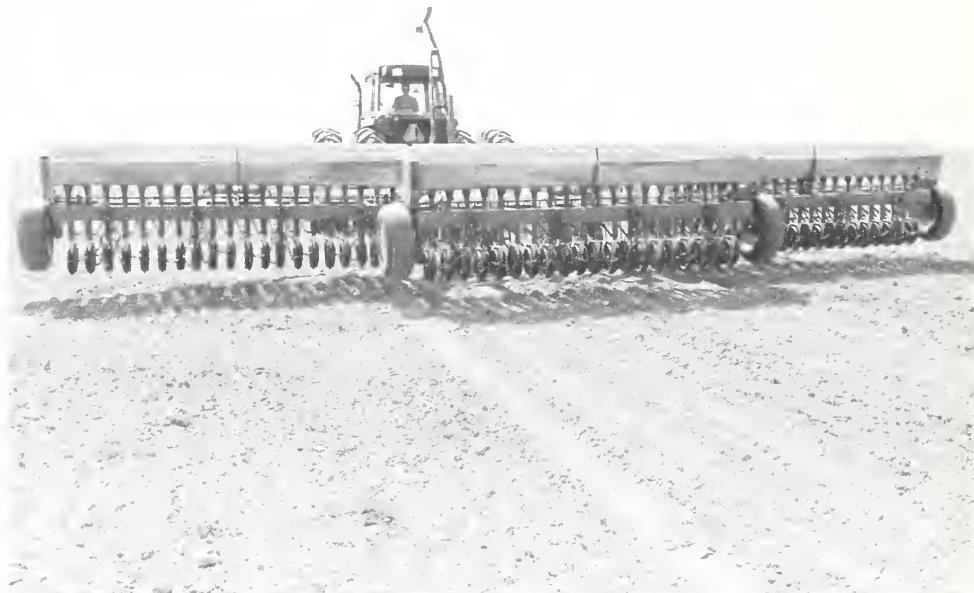
Unlike the CRP, which pays the land-owner annual rental payments for 10 years and cost sharing for establishing the new cover, RIM pays one lump sum and all of the costs for establishing the new cover up to \$75 per acre. For a 10-year easement, RIM pays 90 percent of the average CRP bid accepted in the county. For a perpetual easement, RIM pays 70 percent of the average value of farmland in the township. CRP agreements are legal contracts. RIM easements are attached to property deeds and recorded.

To be eligible for the CRP, land must be in certain capability classes and eroding three times faster than the "tolerable" rate of soil erosion. RIM is based on a list of soil types that are considered marginal farmland and highly erodible. The planning process is basically the same for land in both programs and is based on SCS specifications for land retirement.

"The RIM program complements the CRP program," said Wayne Edgerton, RIM coordinator for the Minnesota Soil and Water Conservation Board. "We're telling farmers who have land eligible for the CRP to put their land into it and then see us about the fringe areas that may not qualify for the CRP. Many of these areas qualify for the RIM program and require the same type of management."

The RIM legislation grew out of a Governor's task force recommendation several years ago on ways to improve the hunting and fishing in the State. It was passed in 1985 and initially funded in 1986 for 1 year. The Council of State Governments plans to recommend it in 1987 as a model for all States.

Districts Help Meet CRP Needs



Triple-sized grass drills can be used to seed up to 160 acres a day.

Local conservation districts are scrambling to help farmers in the Oklahoma Panhandle to obtain grass seed and drills to convert their highly erodible cropland to grassland under the new Conservation Reserve Program (CRP) of the U.S. Department of Agriculture.

A shortage of grass seed and drills occurred in Cimarron, Texas, and Beaver Counties, Okla., after farmers in the three Panhandle counties enrolled more than 204,000 acres in the CRP during the first three signups in 1986. Almost 900 contracts were written, and most of the acreage is scheduled to be planted to grass.

"There are not enough grass drills available to meet the need, so conservation districts are buying new drills to make available to farmers," said Worth Jeffers, Texas County Conservation District board member.

The conservation districts in Texas and Cimarron County both recently purchased triple-sized drills made by hooking three

12-foot grass drills together. Up to 160 acres a day can be seeded with one of these units. For easier transporting, the two outside drills in these triple units can be folded inward with a hydraulic system.

In addition to the triple-sized drills, the Cimarron and Beaver County districts each have three additional 12-foot drills and the Texas County district has four 12-foot drills.

All three districts are obtaining supplies of grass seed for resale to farmers and ranchers. "Supplies of seed are very short this year and districts are working to find as much as possible for this fall and next spring's planting," said Hal Clark, Cimarron County Conservation District director. "Hopefully, there will be a good seed crop next year which will ease the problem."

To help the districts locate seed, the Oklahoma Conservation Commission has set up a clearinghouse to connect districts that are looking for seed with those that know of seed for sale. "We hope to save the districts a lot of phone calls trying to chase down seed supplies," said Mason Mungle, executive director of the Commission.

Most of the land going into the CRP is being planted to native grass or the old world bluestems. "These grasses are the most suitable for the panhandle area," said Jerry Allen, SCS district conservationist for Texas County. "We feel they will be easy to maintain and will provide good erosion control and wildlife cover. Although the landowners are not allowed to graze or hay the area while in the CRP, the grass will provide good palatable vegetation at the end of the 10-year contract period and will be building up the land in the meantime."

Under the CRP farmers will have the option to delay the planting of grass until grass seed is available. Should grass seed not be available, farmers may also get half the cost of planting temporary cover should previous crop residues not be adequate to control soil erosion.

F. Dwain Phillips,
public affairs specialist, SCS, Stillwater, Okla.

Farmers Pool Resources, Survive Drought

In South Carolina, the summer of 1986 will go down as one of the hottest and driest years on record. By August, rainfall in the State was about 21 inches below normal, and farmers watched their crops wither in the sun.

In Edgefield County, an innovative Resource Conservation and Development (RC&D) irrigation project made the difference between success and failure for one group of peach farmers.

Peaches are the county's biggest money crop, and its 12,500 acres of peaches make it number one in the State in peach production. Each summer hundreds of high school students and thousands of migrant workers are hired to pick and pack the fruit.

Most peach farmers have invested about \$3,000 an acre before they ever pick their first peach. That's after having waited 3 years from the time the young trees were set out until the first harvest. But even after the orchards are mature enough to bear fruit, another factor can make or break peach production—water. Without a dependable source of water during critical growth stages peaches can be a very bad investment. There may be no market for peaches less than 2 inches in diameter while peaches 2½ inches in diameter can bring in \$10 a bushel.

Realizing that a reliable supply of irrigation water for their peach orchards would be good crop insurance, five landowners



At left, Robert Bowie, SCS district conservationist in Edgefield County, S.C., discusses group irrigation pond with two of the peach farmers cooperating in the project, William G. Smith, III, center, and William G. Smith, Jr.

with property adjacent to each other contacted the Soil Conservation Service in 1983 to survey a 20-acre irrigation pond on their farms.

Because of the size of the project and the economic benefits of peaches to the county, the irrigation pond was developed under the RC&D program. The Edgefield County Council and the Edgefield Soil and Water Conservation District sponsored the project through the Ninety-Six RC&D Area which covers Laurens, Greenwood, Abbeville, McCormick, Saluda, and Edgefield Counties.

SCS provided survey and design assistance and cost-share funds. The total cost of the irrigation pond, which provides 150 acre-feet of water storage, was \$80,000, and it was completed in 1985.

In 1986, the Satcher-Smith RC&D Group Irrigation Pond, one of the first RC&D cost-shared group irrigation projects in the

Southeast, provided 40 million gallons of water to irrigate more than 400 acres of peaches. "We got our investment back the very first year, and I believe the other farmers did too," said William Smith, Jr., one of the five farmers who cooperated in the project.

In the past 10 years, SCS has helped Edgefield farmers plan and construct over 150 irrigation ponds. The cost has varied from \$2,000 to \$80,000. The average annual benefits from irrigation are \$750 an acre.

Irrigation ponds have saved South Carolina peach farmers millions of dollars and helped stabilize the economy in many rural areas. "During this year's drought, I don't know what we would have done without the pond," said Smith.

Robert L. Bowie,
district conservationist, SCS, Edgefield, S.C.

Group Sponsors Water Resources Law Symposium

The critical drought in the southeastern United States and continuing reports of water quality problems dramatize growing concerns about water. These concerns and issues of water allocation, regulation of water quality, and priority of water ownership are some of the subjects to be

addressed in a 2-day symposium in Chicago, Ill., on December 14-15, 1986.

The "Water Resources Law" symposium will include presentations by 25 lawyers, engineers, government regulators, and other experts. They will address a variety of water resources law issues including legal, economic, and political constraints; ethical considerations; and suggestions for innovative solutions.

The symposium is sponsored by the American Society of Agricultural Engineers

(ASAE) in cooperation with 15 other organizations. It will provide lawyers, engineers, water industry personnel, government officials, and others interested in water resources law an opportunity to learn about new developments in the field.

For more information contact ASAE, 2950 Niles Road, St. Joseph, Mich. 49085-9659; or telephone (616) 429-0300.

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Meetings

January	7-11	North American Gamebird Association, New Orleans, La.
	11-15	American Farm Bureau Federation, Anaheim, Calif.
February	8-13	Society for Range Management, Boise, Idaho
	14-18	American Association for the Advancement of Science, Chicago, Ill.
	16-19	Land Improvement Contractors of America, Las Vegas, Nev.
	26-27	International Erosion Control Association, Reno, Nev.
March	1-4	National Farmers Union, Fort Worth, Tex.
	16-20	American Society for Surface Mining and Reclamation, Billings, Mont.
	19-22	National Wildlife Federation, Quebec City, Quebec, Canada
	20-25	North American Wildlife and Natural Resources Conference, Quebec City, Quebec, Canada
	22-24	American Pulpwood Association, Washington, DC
	23-27	A Workshop: Soil and Water Conservation on Steep Lands, San Juan, Puerto Rico
April	22-26	Association of American Geographers, Portland, Oreg.
	25-29	American Planning Association, New York, N.Y.
	27-29	The Role of Legumes in Conservation Tillage Systems Conference, Athens, Ga.
May	7-14	National Council of State Garden Clubs, Bal Harbour, Fla.
	13-15	Southern Forestry Conference, Savannah, Ga.
June	13-17	National Environmental Health Association, San Diego, Calif.
	14-18	American Water Works Association, Kansas City, Mo.
	21-24	Forest Products Research Society, Louisville, Ky.
	21-26	Air Pollution Control Association, New York, N.Y.
	28-July 1	American Society of Agricultural Engineers, Baltimore, Md.